



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/899,160      | 07/06/2001  | Reinhard Joho        | 033275-231          | 9763             |

21839 7590 10/04/2002

BURNS DOANE SWECKER & MATHIS L L P  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

[REDACTED] EXAMINER

MOHANDESI, IRAJ A

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2834

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                             |                  |
|------------------------------|-----------------------------|------------------|
| <b>Office Action Summary</b> | Application No.             | Applicant(s)     |
|                              | 09/899,160                  | JOHO, REINHARD   |
|                              | Examiner<br>Iraj A Mohandes | Art Unit<br>2834 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 July 2001.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 July 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.9.
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Objections***

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 4 been renumbered 3.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, are rejected under 35 U.S.C. 102(b) as being anticipated by**

**Pannen 403 051 Switzerland patent.**

**Pannen 403 051** discloses stator winding for electrical machine (page 2 line 22-23 ), the stator winding comprising, a stator core having slots (6,4,5, Fig. 2), two conductor bars in each of the winding slots (4,5, Fig.2), wherein one of the two conductor bar is arranged close to a boring of the winding slots and the other of two conductor bars is arranged

close to a slot base of the winding slots and the other of the two conductor bars comprises a plurality of strand columns or stand planes ,and the conductor bar arranged close to the boring is provided with more strand columns or planes than conductor bar arranged close to the slot base. (4,5, Fig. 2), the conductor bar close to the slot base is constructed as a single Roebel bar with two strand columns or strand planes , and the conductor bar close to the boring is provided with three or more strand columns ( 4,5, Fig. 2 page 1, line 61-74,page 2 line 20), wherein an effective total width of the strand columns or strand planes in both conductor bars is approximately the same (Fig.2), ,the conductor bar close to the boring is constructed as a twin Robel bar with four strand column

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pannen 403 051 in view of Umeda US Patent 5,955,810.**

Pannen '051 discloses stator winding for electrical machine (page 2 line 22-23 ), the stator winding comprising, a stator core having slots (6,4,5, Fig. 2),two conductor bars in

each of the winding slots (4,5, Fig.2), wherein one of the two conductor bar is arranged close to a boring of the winding slots and the other of two conductor bars is arranged close to a slot base of the winding slots and the other of the two conductor bars comprises a plurality of strand columns or stand planes ,and the conductor bar arranged close to the boring is provided with more strand columns or planes than conductor bar arranged close to the slot base. (4,5, Fig. 2), the conductor bar close to the slot base is constructed as a single Roebel bar with two strand columns or strand planes , and the conductor bar close to the boring is provided with three or more strand columns ( 4,5, Fig. 2 page 1, line 61-74,page 2 line 20), wherein an effective total width of the strand columns or strand planes in both conductor bars is approximately the same (Fig.2),

However **Pannen'051** fail to teach a stator winding with two conductor bars in the winding slots wherein an effective height of the conductor bar close to the boring is at least as high as an effective height of the conductor bar close to the slot base and the effective heights of the two bars are the same, corresponding conductor bars are connected at their bar ends, at least one eye is provided for connecting all columns of the bars together, and eyes are provided for separately connecting columns of two conductor ,and the columns bar close to the slots base are separately connected to pairs of the bars close to the boring.

**Umeda'810** discloses a stator winding with two conductor bar in the winding slots, wherein an effective height of the conductor bar close to the boring is at least as high as an effective height of the conductor bar close to the slot base and the effective heights

of the two bars are the same (Fig .2,3,9),and corresponding conductor bars are connected at their bar ends, at least one eye is provided for connecting all columns of the bars together(Fig. 1), and eyes are provided for separately connecting columns of two conductor (Fig.3,5) ,and the columns bar close to the slots base are separately connected to pairs of the bars close to the boring (Fig 10,11).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify **Pannen 403 051** stator winding with two conductor bars in the winding slots, wherein the effective heights of the two bars are the same, further corresponding conductor bars are connected at their bar ends, at least one eye is provided for connecting columns of the bars together, and eyes are provided for separately connecting columns of two conductor, and the columns bar close to the slots base are separately connected to pairs of the bars close to the boring for the purpose of having equal cross sections of conductor in both slots and connecting the electrical circuits of two conductor bars (upper and lower slots ) together.

With respect to claim 3.

**Pannen'051, Umeda'810** disclose the claimed invention except for a stator winding characterized in conductor bar close to the boring is constructed as a twin Roebel bar with four stranded columns

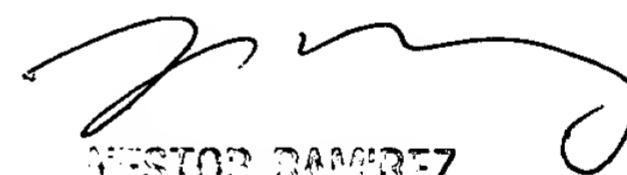
It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the stator winding with four stranded columns , since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Communication***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iraj A Mohandes whose telephone number is (703)305-3242. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-0377.



NESTOR RAMIREZ  
SUP. PATENT EXAMINER  
Art Unit 2834

I.M  
September,22,2002